

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

ORIGINAL (Red)

Region III 841 Chestnut Building Philadelphia, Pennsylvania 19107

APR 19 1991

Honorable Arlen Specter United States Senator 9400 Federal Building Philadelphia, PA 19106



Dear Senator Specter:

Thank you for your inquiry of March 14, 1991 on behalf of your constituent, Ms. (b) (6) regarding the quality and extent of the data from samples taken at the Valley Forge Hospital Site.

As a result of Ms. (b) (6) concerns, the Environmental Protection Agency (EPA) has entered the Valley Forge Hospital Site into the Federal Facilities Hazardous Waste Compliance Docket. Although the listing did not make the deadline for publication in the next update of the Federal Register, it is nevertheless in the official docket.

Pursuant to the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) Section 9601 et seq., a Preliminary Assessment (PA) of a facility is required to be completed within 18 months of the docket listing. Following this submittal, the EPA makes a determination on the need for a Site Investigation (SI) at the facility. When the SI is completed, the facility is evaluated and scored on the Hazard Ranking System (HRS) to decide if it is eligible for inclusion on the National Priorities List (NPL) which would qualify it for cleanup under Superfund.

The PA and SI for the Valley Forge Hospital Site are now in place, as required by law, at our Region III office, and will be reviewed by appropriate EPA personnel including a toxicologist and hydrogeologist. They will evaluate the quality of the field data and the laboratory analysis. They will also assess the findings and interpretation of the data to determine if there is a need for further onsite and offsite sampling.

This outlines the most recent information about EPA's current activity and ongoing concern about the Valley Forge Hospital Site. If we can be of further assistance, please do not hesitate to contact this office again.

Sincerely,

Edwin B. Erickson

Regional Administrator

Phoenixville, PA 19460 March 11, 1991

Senator Arlen Specter United States Senate 9400 Federal Building 600 Arch Street Philadelphia, PA 19106

Dear Senator Specter,

I am writing to request your assistance in persuading the Army Corps of Engineers to continue their investigation into possible contamination at the site of the former Valley Forge General Hospital in Chester County, PA until definitive conclusions can be reached on the risk to humans and the environment. A very preliminary investigation was performed by the IT Corporation which indicates the presence of nine compounds above the EPA proposed corrective action levels.

Attached for your review are copies of my letters to the Army Corps of Engineers, the EPA and the PA DER with my comments, questions and concerns on the work performed to date. The letter to the Army Corps consists of a 2 page summary of my findings which I presented to them at the February 19, 1991 public meeting held by the Corps and seven pages of supporting details.

The occurrence of several cases of Hodgkin's Disease from past residents of (b) (6) bordering the hospital property, is very unsettling to the community. Although the Chester County Health Department spokesman, Dr. Maher, said that, statistically, there is not a higher number of cases in Chester county than is expected, there has been no published report of their findings. Furthermore, the statistical approach he uses leaves many people dissatisfied. I believe there are six reported cases of Hodgkin's Disease from a small group of homes that border the property. Even if there is, in fact, no "imminent danger" now, there may have been a danger in the past or there may be a long-term danger now due to contamination from past activities at the site.

I urge you to contact the appropriate parties, the Army Corps of Engineers, the U.S. EPA and the PA DER on the behalf of the residents of this community to ensure that the Valley Forge General Hospital site investigation be completed. Thank you for your continued assistance in this matter.

Sincerely,



(b) (6)
Phoenixville, PA 19460
March 11, 1991

Mr. Rick Wilson, Project Manager U.S. Army Corps of Engineers, Omaha District 215th North 17th Street Omaha, Nebraska 68102-4978

Dear Mr. Wilson,

Attached is an outline of detailed comments, questions and concerns that are the basis for my statement made at the Army Corps of Engineers' February 19, 1991 public meeting.

I understand from your remarks at the meeting that you will review these comments for incorporation into your recommendations, and that this entire letter will also be included in your final report recommending further study of this site. I thank you again for your cooperation in this matter. I look forward to receiving your feedback on my attached comments and questions.

Sincerely,



cc: Senator E. Baker, G. Bonner (PA DER), L. Cunningham (U.S. EPA) !- Ewald, Representative J. Heinz, T. Ryan, Representative R. Schulze, Senator A. Specter Representative P. Vroon

Valley Forge General Hospital March 11, 1991 By: (6)

These comments are the details that support my statement made to the Army Corps of Engineers at the February 19, 1991 public meeting (see attached).

As an opening comment, I criticized the size of the document. For the average person, this 3 volume report is overwhelming. An executive summary would have been helpful. There is redundant and extraneous information which resulted in a very large report. Some of the redundancies are to be expected, such as tabulation of the analyses. However, the report could have been more concise and better organized. There was a good deal of extraneous material such as information on churches/ schools in the area which is not used for any purpose, some pages of tables listing chemicals for which the samples were not analyzed, and some pages in Appendix E that do not belong there. They are apparently from other portions of the report or from the work plan or some other unrelated document. Also, there were unnecessary and lengthy technical explanations. For example, the 17 pages spent explaining the endangerment assessment procedures lead to a statement that more qualitative risk assessment is necessary.

1. QUALITY CONTROL:

The level of quality control that one applies to a project should be determined by the level of certainty that one expects from the results. If the results will be viewed as preliminary and used only to provide guidance for future study, a low level of quality control is acceptable. With this approach, no definitive conclusions (such as endangerment assessments) can be reached. Due to the nature and extent of the objectives of this project, a high degree of quality control should have been applied. Based on this premise, the level of quality control that is indicated in the report is totally inadequate. The low level of quality control that is indicated from this report results in data that should only be used to formulate the sampling and analytical strategy for the next step of the investigation.

* An explanation of the definition and purpose of each type of QC sample seems necessary. One has to assume that the appropriate types and number of laboratory QC samples were taken since the information on these is not included. These would include matrix spike/matrix spike duplicate samples (MS/MSD), reagent blanks and method blanks. It is also a good idea to have storage blanks if high quality control is desired. This report did mention method blanks several times in stating that contamination was found in them. How much contamination was there in these method blanks? Where the MS/MSD samples and storage blanks taken? How often were all these samples analyzed? (once every 20 samples?)

* Trip blanks are QC samples that should start out with the empty containers and make the entire trip to the field and to the lab with the samples. They are used to ascertain if contamination exists in the sampling bottles or the preservatives or during transportation or storage facilities or any combination of these possible sources when used in combination with other blanks. There should be one in every cooler as was specified in the work plan This was not done. Out of 17 days of shipments (9 days to ITCINC, 3 days to ITKNOX and 4 days to USACE) only 4 trip blanks were taken. Out of these four, the only results that appear in the tables are for the trip blank that accompanied the groundwater sampling, and this was not analyzed for every chemical. Where are the results from the remaining three blanks (from 10/15/90)? Furthermore, there were no trip blanks ever sent to the USACE lab.

Trip blanks should be the same media as the samples (soil or water). This also was not done correctly. Water trip blanks are not correct during collection of soil samples. Also, where did the blanks come from? It is important to verify that the source is "clean".

- o Where are the results from the "split" sample collected for MW4 that appears on the Chain of Custody form (COC) but not in table 7?
- * The COC forms in the report are incomplete. This means that sample transfer procedures cannot be validated. They also do not list the temperature at shipment and receiving as was agreed to in your October 26, 1990 response to my work plan comments.
- * Of the quality control samples that were collected and analyzed, the report repeatedly mentions contamination of the method blanks, and the "duplicate and split" samples' results were not within an acceptable range for all chemicals analyzed. This means that the data is not validated and that the sampling/analysis procedures were not of high quality.

II. INADEQUATE SAMPLING/SAMPLING PROCEDURES:

There are numerous reasons why the sampling and sampling procedures were deficient.

- * One sampling round is not enough to make any definitive conclusions. It can only <u>suggest</u> that there is or is not contamination.
- * No off-site sampling was conducted even though all of the results suggest that the spread of contamination was probably airborne. Soil samples from the properties on (b) (6) and water/soil sediment samples from (b) (6) from the hospital property should be analyzed, at minimum.

The analyses was deficient for several reasons.

- * Consistent contamination of method blanks shows poor laboratory practices. The report does not indicate the extent of the contamination found in the method blanks. How contaminated were they?
- * No dioxin analysis were performed on surface soil samples below 3 inches (1-3 feet) despite its presence in soil boring samples up to 7 9 feet. The deepest soil boring (11-13 feet) was not analyzed for dioxins. The report states that samples collected at 1-3 feet would be re-sampled for the week of 1/29/91. Are the results back yet? Was anything other than dioxin analyzed for to see if replication of results occurs?
- * There was an overall inconsistency in the analyses performed. For example, the split samples were not analyzed for the same analytes, the landfill surface soil samples greater than 3 inches deep were not analyzed for PCB's or pesticides, and the trip blanks were not analyzed for anything but VOC's. This lack of consistency is a major weakness in the analyses. There were a few circumstances where the same location and depth was sampled on different days, but opposite analyses were performed thereby missing the opportunity for confirmation of the results.
- o The tests done in October, 1989 for the Phoenixville School District showed levels of strontium. Why were the samples not analyzed for this compound?
- * There is a statement made on page 50 that no dioxins/furans were found in the groundwater. The table of results has "NA" (not analyzed) for dioxins/furans for all of the groundwater samples. This is very confusing at first, but the laboratory reports in appendix G do have values of ND (not detected). The groundwater results table should be corrected.

IV. INSUFFICIENT SITE HISTORY:

The site history seems sparse. There is insufficient follow through on details and inadequate questioning of knowledgeable personnel and/or neighbors.

- o Pg. 2 What was done with the waste from "experimental research" conducted?
- o Pg. 3 Was the Maintenance, Repairs, and Utilities Branch or the Engineering Division contacted for review of waste records or interviews with personnel from that time?
- o Pg. 3 Incinerator capacity stated as 5 tons. 5 tons per hour or day ?
- o Pg. 4 Landfill was expanded from what to what and why?

VI. ADDITIONAL COMMENTS/QUESTIONS:

- * The objectives of this investigation were inadequate in that they focused too much on the landfill and not on the entire site. The people in this community want to know if the previous activity at the site has resulted in contamination of the area, whether via the landfill, the incinerator, the soil, or any other means.
- * One of the objectives outlined in the work plan was to identify potential remedial actions. I had thought that this was not done since it is premature to do so with so little valuable data. However, the Army Corps stated that it was not necessary since there is "no imminent danger". The report failed to even address this objective. How can no further action be necessary when the report shows nine compounds in excess of their respective corrective action levels and recommends further study to determine risk to humans and the environment? "No imminent danger" does not correspond to no danger at all.
- * Is there a published report detailing the Chester County Health Department's study of the Hodgkin's Disease cases? Many people were totally dissatisfied with the verbal report presented by Dr. Maher, who claimed that there was no statistical significance to 6 cases in one neighborhood. This was based on a comparison of the expected rate of Hodgkin's Disease for a three county area, not one small neighborhood.
- o Why was the potable water sampled? This is not very meaningful data since this water is not groundwater, is treated and is not from the area. This public water supply comes from the Schuylkill river. How is this relevant information?
- o Page 1 mentions some waste removal actions done at the site. At the 2/19/91 meeting, it was stated that a summary would be issued in three weeks. Has this been made available to the public?
- o Page 23 hypothesizes that the lead concentrations may have been due to automobile emissions. This seems very far fetched as this is not even close to a highway or parking lot.
- o How are the two well inventory lists related? These are not complete. I know of one neighbor's well which is not on here despite the fact that you were informed of this person's well at the last public meeting ((b) (6) (b) (9) . Perhaps there are others too.
 - o Page 20 references the tests done by RMC Environmental Services in May 1990. What compounds were tested for? Was dioxin found? Where is the pond that they tested?

Comments on the Valley Forge General Hospital Investigation

<u>Background</u>: B.S. Chemical Engineering, presently working as an Environmental Engineer.

My limited review of the report on IT's investigation at the Valley Forge General Hospital has left me with numerous questions and concerns. I have discussed these concerns with some of my colleagues who concur with my findings. My review focused on the areas of the investigation that I am most knowledgeable of. I can not cover all of the details of my findings tonight. I hesitate to submit my concerns to you in writing since I was very dissatisfied with the response that I received from my previous comments on the work plan. Much of that response was vague and skirted the issues. Despite my misgivings, I will submit to you written detailed examples and specific questions for each of my concerns after I update my comments to incorporate tonight's discussion.

Prior to presenting a brief summary of my findings, I would like to make a general comment. For the average person, this 3 volume report is overwhelming. It would have been helpful if an executive summary had been provided for the layman to read. If the report was more concise and more organized, data would not have been repeated in several places. I just want people to realize that the size of the report does not necessarily correspond to the amount of work accomplished.

- The quality control was totally inadequate to validate much of the information found during this investigation. These invalidated results were then used as the basis for the entire report and its conclusions. There seems to be a misunderstanding of the different types of quality control samples required for validation of both sampling and analytical techniques. Certain types of quality control samples are required to validate sampling procedures. Different types of quality control samples are required to validate the laboratory work. There was an insufficient number of every type of quality control sample taken. For those few quality control samples that were analyzed, the analysis was incomplete, and the results suggest poor sampling and/or analysis techniques.
- 2. There are significant problems with both the scope of the sampling and the sampling techniques. The number of samples taken was too limited to allow definitive conclusions to be reached. The presence of an incinerator near the property boundary suggests the need for off-site sampling due to the possibility of airborne contaminants. The procedures are flawed as evidenced by the contamination found in quality control blanks. The presence of contaminants in quality control blanks undermines the validity of the results.
- 3. The analysis was deficient for several reasons. There was consistent contamination of method blanks which indicates poor analytical techniques, and there was not consistency in the type of analyses performed from sample to sample.

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- 4. The site history is incomplete. There is insufficient follow through on details and inadequate questioning of knowledgeable hospital personnel and/or neighbors.
- 5. The endangerment assessment is limited and inconclusive. There is one final statement which says that further work is necessary, however no specific recommendations for future investigation are provided.

The most significant accomplishment in the six months since our last public meeting is the completion of the monitoring well installations. The results in the document that we are discussing tonight should be viewed as very preliminary; they should only be used to formulate the sampling and analytical strategy for future investigation.

My key concern tonight is the pressing need for the prompt initiation of further investigation of both on and off-site contamination at the Valley Forge General Hospital. Any future work must address the problems that I have just summarized.

My intention in submitting these comments is to provide constructive criticism. I look forward to discussing your detailed response to these issues in a public forum in the very near future.

Phoenixville, PA 19460 March 11, 1991

Ms. Lisa Cunningham (3HW26) U.S. Environmental Protection Agency, Region 3 841 Chestnut Building Philadelphia, PA 19107

Dear Ms. Cunningham,

Enclosed for your review is a copy of the comments and questions that I submitted to the Army Corps of Engineers concerning the recent investigation done by the IT Corporation at the site of the former Valley Forge General Hospital located in Chester County, PA.

There are five major flaws with this work which include: inadequate quality control of the sampling and analyses, an insufficient number of samples, poor sampling and analysis techniques, a scant site history, and an incomplete and inconclusive endangerment assessment.

The Army Corps of Engineers (Corps) held a public meeting on February 19, 1991 to discuss their findings. Although IT's three volume report states that "Risk to human health and the environment cannot be established.... Additional study is required" (p. 51), at the meeting, the Corps concluded from the endangerment assessment that there is no "imminent danger to humans or the environment."

After review of the IT report and my comments, I am sure that you will agree that further investigation, both on and off-site is necessary. Although there was a low level of quality control applied to the investigation, the results so far do indicate the presence of contaminants, including dioxin and metals (beryllium, lead, chromium and mercury). The suggested presence of nine compounds above the proposed corrective action levels is a real concern to the community since the presence of an incinerator suggests airborne spread of contamination.

This, along with the occurrence of several cases of Hodgkin's Disease from past residents of (b) (6) bordering the hospital property, is very unsettling. Although the Chester County Health Department spokesman, Dr. Maher, said that, statistically, there is not a higher number of cases in Chester county than is expected, there has been no published report of their findings. Furthermore, the statistical approach he uses leaves many people dissatisfied. I believe there are six reported cases of Hodgkin's Disease from a small group of homes that border the property. Even if there is, in fact, no "imminent danger" now, there may have been a danger in the past or there may be a long-term danger now due to contamination from past activities at the site.

For all of these reasons, I urge you to carefully review the IT report and my findings. In addition, I am interested in the possibility of EPA testing of neighbor's soils. Many people, including myself, garden and consume food grown in this potentially contaminated soil. Will the EPA come and test our soils? Thank you, in advance for your cooperation in this matter. I look forward to hearing from you very soon.

Sincerely



cc: Senator E. Baker, I. Ewald, Representative J. Heinz, T. Ryan, Representative R. Schulze, Senator A. Specter, Representative P. Vroon

Non Responsive based on Revised Scope

Phoenixville, PA 19460 March 11, 1991

Mr. Gary Bonner
Pennsylvania Department of Environmental Resources
Lee Park
Suite 6010
555 North Lane
Conshohocken, PA 19428

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This, along with the occurrence of several cases of Hodgkin's Disease from past residents of (b) (6) by the community. Although the Chester County Health Department spokesman, Dr. Maher, said that, statistically, there is not a higher number of cases in Chester county than is expected, there has been no published report of their findings. Furthermore, the statistical approach he uses leaves many people dissatisfied. I believe there are six reported cases of Hodgkin's Disease from a small group of homes that border the property. Even if there is, in fact, no "imminent danger" now, there may have been a danger in the past or there may be a long-term danger now due to contamination from past activities at the site.

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This outlines the most recent information about EPA's current activity and ongoing concern about the Valley Forge Hospital Site. If we can be of further assistance, please do not hesitate to contact this office again.

Sincerely,

Edwin B. Erickson Regional Administrator

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